

Abstract

The invention relates to a device for producing water on board of an airplane by means of one or several fuel cells. The inventive water producing device is embodied in the form of one or several high temperature fuel cells (7) and entirely or partially integrated into a jet power unit of the airplane in such a way that the combustion chambers (7A) of said jet power unit of the airplane are entirely or partially substituted by said high temperature fuel cells. The aim of said invention is to develop a combination of fuel cells and a gas turbine which operates exclusively with atmospheric hydrogen and oxygen and is embodied in the form of a jet power unit and/or an auxiliary jet power unit (on-board auxiliary power unit: APU) used for producing compressed air for a cabin and a power supply. For this purpose, said high temperature fuel cells are fed with pure hydrogen on an anode side and with air on a cathode side. The combustion chambers (7A) are fed with an air-hydrogen mixture, enabling at least the hydrogen supply to be adjusted or completely shut off.